

REMARKS

Applicants have amended claims 11 and 23, step (d) to recite to “a growing strand” instead of “the growing strand.” Amendment is clerical and thus, does not introduce new matter, and its entry is respectfully requested.

Applicants have amended claims 23 and 30 to make explicit that the terminus of the nucleic acid extends to the z-dimension. The amendment is clerical and also supported by the specification in its entirety. Accordingly, no new matter has been introduced and the entry of the amendment is respectfully requested.

Applicants have amended claims 11, 23 and 30 to make explicit that the terminus of the sequence in the z-dimension differs from the sequence of at least one other strand, namely, by specifying that the 3' terminus results from the termination of the amplification of the sequence of interest. These amendments are supported throughout the specification, and particularly at pages 10-12, and Figures 2 and 3B-3C. As such, these amendments do not introduce new matter and their entry is respectfully requested.

The Examiner rejected claims 11 and 23-38 under 35 U.S.C. §112 second paragraph. Specifically, the Examiner alleged that there is insufficient antecedent basis for the term “the growth strand”. Applicants have amended claims 11 and 23 to recite “a growing strand.”

The Examiner also rejected claim 23 on the basis of it referring to oligonucleotides extending “at the terminus in the z-dimension.” To expedite prosecution, Applicants have amended claim 23 to refer to the oligonucleotide extending “at the terminus in the direction of the z dimension.”

The Examiner similarly contended that claim 30 was unclear, because of the recitation to “redundancy in the terminus of the z-dimension.” While applicants disagree, to expedite prosecution, Applicants have amended claim 30 to refer to “redundancy in the terminus extending to the direction of the z-dimension.”

Accordingly, Applicants submit that the claims now comply with the 35 U.S.C. §112, second paragraph, and the rejection should be withdrawn.

Claims 11 and 23-38 were rejected under 35 U.S.C. §102(e) as being anticipated by Smith et al., U.S. Patent No. 5,753,439, filed May 19, 1998 ("Smith").

To expedite prosecution, Applicants have amended claims 11, 23 and 30. In light of the amended claims and the following arguments, Applicants respectfully submit that the rejection should be withdrawn.

Applicants submit that the product of the present invention differs from the product of Smith in that the oligonucleotide probes in the arrays of the present invention have been extended at their 3' termini thus resulting in differing 3' termini according to the sequence of interest. The 3' terminus of each strand of the Smith array is always the same. The array of Smith comprises oligonucleotide probes that each have 100% identical 5' and 3' ends. This is not the same with the claimed arrays. They can be produced by a process such as RCA of the sequence of interest in the z-dimension. The sequence of interest differs from strand to strand in for example, claim 11. The 3' terminus in the z-dimension will differ depending on the sequence of interest. It will also vary depending upon where the amplification terminates. As discussed in the specification, for example at pages 10-12, the array of the invention comprises diverse sequences of interest. After the rolling circle extension, each of these diverse sequences have been repeated towards the z-dimension. Applicants have amended claims to make it clear that the 3' termini (the termini that extend to the z-dimension) of the oligonucleotide probes on the array are unique, namely that they differ according to the sequence of interest. Thus, the array taught is one that differs from Smith. The defined product differs from Smith.

Accordingly, in light of the above, Applicants submit that the rejection under 35 U.S.C. §102(e) should be withdrawn.

Claims 11 and 23 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,284,497 B1.

Applicants will submit a terminal disclaimer.

In view of the foregoing, applicants submit that all claims are in condition for allowance. Early and favorable action is requested.

Respectfully submitted,

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Ronald I. Eisenstein (Reg. No.: 30,628)

Leena H. Karttunen (L0207)

NIXON PEABODY LLP

100 Summer Street

Boston, MA 02110

(617) 345-6054